

chain nodes :

19 28 29 30 31 32 33 34 35 36 37 38 39 44

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 20 21 22 23 24 25 26 27

chain bonds :

3-28 9-29 15-19 16-44 20-38 22-37 24-39 26-36 28-30 28-31 28-32 29-33 29-34 29-35

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 6-20 6-23 7-8 7-12 8-9 9-10 10-11 11-12 12-24 12-27 13-14 13-18 14-15 15-16 16-17 17-18 20-21 21-22 22-23 24-25 25-26 26-27

exact/norm bonds :

1-2 1-6 2-3 3-4 4-5 5-6 6-20 6-23 7-8 7-12 8-9 9-10 10-11 11-12 12-24 12-27 15-19 16-44 20-21 20-38 21-22 22-23 22-37 24-25 24-39 25-26 26-27 26-36

exact bonds :

3-28 9-29 28-30 28-31 28-32 29-33 29-34 29-35

normalized bonds :

13-14 13-18 14-15 15-16 16-17 17-18

G1:[\*1],[\*2]

G2:X,Cb,CN,NO2,C,O,S

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom  
 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:CLASS 20:Atom 21:Atom  
 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:CLASS 29:CLASS 30:CLASS  
 31:CLASS 32:CLASS 33:CLASS 34:CLASS 35:CLASS 36:CLASS 37:CLASS 38:CLASS 39:CLASS  
 44:CLASS

=> d his

(FILE 'HOME' ENTERED AT 11:31:14 ON 27 SEP 2003)

FILE 'REGISTRY' ENTERED AT 11:31:20 ON 27 SEP 2003

L1               STRUCTURE UPLOADED  
L2               1 S L1  
L3               23 S L1 FULL

=> d que l3 stat

L1               STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

L3               23 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED   609 ITERATIONS  
SEARCH TIME: 00.00.01

23 ANSWERS

=> fil capl

FILE 'CAPLUS' ENTERED AT 11:32:14 ON 27 SEP 2003

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FILE COVERS 1907 - 27 Sep 2003 VOL 139 ISS 14

FILE LAST UPDATED: 26 Sep 2003 (20030926/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

' .FIONA' IS DEFAULT FORMAT FOR 'CAPLUS' FILE

=> s l3

L4               1 L3

=> d ibib iabs hitstr

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:247313 CAPLUS

DOCUMENT NUMBER: 134:280721

TITLE: Preparation of trifluoromethyl spirocyclic ketoenols for use as pesticides and herbicides  
 FISCHER, Reiner; GRAFF, Alan; BRETSCHNEIDER, Thomas; ERDELEN, Christoph; DREWES, Mark Wilhela; FEUCHT, Dieter

PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 144 pp.  
 CODEN: PIXXD2

DOCUMENT TYPE: Patent

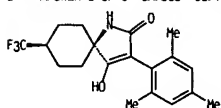
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

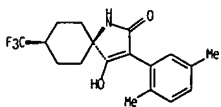
| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|---|------|----------|------------------|----------|
| WO 2001023354   | A2   | 20010405 | WO 2000-EP9270   | 20000919 |
| WO 2001023354   | A3   | 20020228 |                  |          |
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| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CH, CN, GA, GN, GW, ML, MR, NE, SN, TD, TG  |      |          |                  |          |
| OE 19946625   | A1   | 20010405 | DE 1999-19946625 | 19990929 |
| BR 2000014352   | A    | 20020611 | BR 2000-14352    | 20000919 |
| EP 1220841  | A2   | 20020710 | EP 2000-967741   | 20000919 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL   |      |          |                  |          |
| JP 2003510308   | T2   | 20030318 | JP 2001-526508   | 20000919 |
| PRIORITY APPLN. INFO.: DE 1999-19946625 A 19990929  |      |          |                  |          |
| WO 2000-EP9270 W 20000919   |      |          |                  |          |
| OTHER SOURCE(S): MARPAT 134:280721  |      |          |                  |          |
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L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



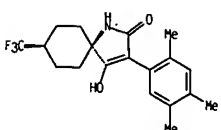
RN 332347-97-4 CAPLUS  
 CN 1-Azaspiro[4.5]dec-3-en-2-one, 3-(2,5-dimethylphenyl)-4-hydroxy-8-(trifluoromethyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



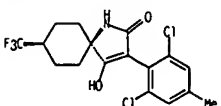
RN 332348-05-7 CAPLUS  
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Relative stereochemistry.

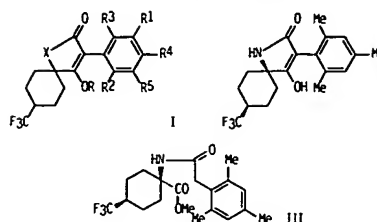


RN 332348-13-7 CAPLUS  
 CN 1-Azaspiro[4.5]dec-3-en-2-one, 3-(2,6-dichloro-4-methylphenyl)-4-hydroxy-8-(trifluoromethyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



## ABSTRACT:

Spirocyclic ketoenols, such as I [X = O, NH; R = H, acyl, alkyloxycarbonyl, etc.; R1 = H, halogen, alkyl, alkoxy; R2 = H, CN, NO2, Ph, PhO, PhS, alkyl, alkenyl, alkynyl, alkoxy, haloalkyl, haloalkoxy, phenylalkoxy, phenylalkylthio; R3 = H, CN, NO2, Ph, PhS, PhO, alkyl, alkenyl, alkynyl, alkoxy, haloalkyl, haloalkoxy, phenylalkoxy, phenylalkylthio; R4 = H, CN, NO2, halogen, alkyl, alkoxy, haloalkyl, haloalkoxy; R5 = H, CN, NO2, OH, PhS, PhO, halogen, alkyl, alkoxy, haloalkyl, haloalkoxy, heteroaryloxy, phenylalkoxy, phenylalkylthio], were prepd. for use as pesticides and herbicides. Thus, spirocyclic ketoenol II was prepd. in 74% yield by intramol. cyclocondensation of ester III, which was prepd. starting from 4-(trifluoromethyl)cyclohexanone and mesityleneacetyl chloride. The prepd. spirocyclic ketoenols were tested for insecticidal activity against species, such as Myzus persicae, Aphis gossypii, and Tetranychus urticae.

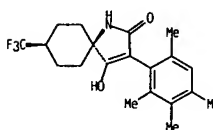
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 332348-13-7P 332348-19-3P 332348-24-0P  
 332348-66-0P 332348-69-3P 332348-73-9P  
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (prepn. of trifluoromethyl spirocyclic ketoenols for use as pesticides and herbicides)  
 RN 332347-92-9 CAPLUS  
 CN 1-Azaspiro[4.5]dec-3-en-2-one, 4-hydroxy-8-(trifluoromethyl)-3-(2,4,6-trimethylphenyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

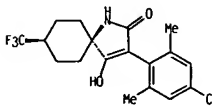
RN 332348-19-3 CAPLUS  
 CN 1-Azaspiro[4.5]dec-3-en-2-one, 4-hydroxy-3-(2,3,4,6-tetramethylphenyl)-8-(trifluoromethyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

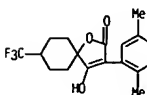


RN 332348-24-0 CAPLUS  
 CN 1-Azaspiro[4.5]dec-3-en-2-one, 3-(4-chloro-2,6-dimethylphenyl)-4-hydroxy-8-(trifluoromethyl)-, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

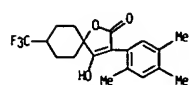


RN 332348-66-0 CAPLUS  
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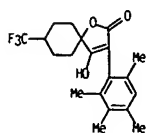


RN 332348-69-3 CAPLUS  
 CN 1-Oxaspiro[4.5]dec-3-en-2-one, 4-hydroxy-8-(trifluoromethyl)-3-(2,4,5-trimethylphenyl)- (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



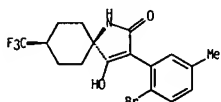
RN 332348-73-9 CAPLUS  
CN 1-Oxaspiro[4.5]dec-3-en-2-one, 4-hydroxy-3-(2,3,4,6-tetramethylphenyl)-8-(trifluoromethyl)- (9CI) (CA INDEX NAME)



IT 332348-28-4P 332348-31-9P 332348-35-3P  
332348-39-7P 332348-43-3P 332348-47-7P  
332348-50-2P 332348-54-6P 332348-57-9P  
332348-60-4P 332348-63-7P 332348-75-1P  
332348-77-3P 332348-80-8P  
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of trifluoromethyl spirocyclic ketoenols for use as pesticides and herbicides)

RN 332348-28-4 CAPLUS  
CN 1-Azaspiro[4.5]dec-3-en-2-one, 3-(2-bromo-5-methylphenyl)-4-hydroxy-8-(trifluoromethyl)-, cis- (9CI) (CA INDEX NAME)

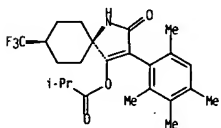
Relative stereochemistry.



L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

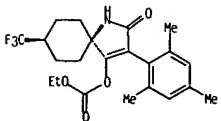
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CN Propanoic acid, 2-methyl-, cis-2-oxo-3-(2,3,4,6-tetramethylphenyl)-8-(trifluoromethyl)-1-azaspiro[4.5]dec-3-en-4-yl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.



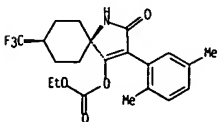
RN 332348-47-7 CAPLUS  
CN Carbonic acid, ethyl cis-2-oxo-8-(trifluoromethyl)-3-(2,4,6-trimethylphenyl)-1-azaspiro[4.5]dec-3-en-4-yl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 332348-50-2 CAPLUS  
CN Carbonic acid, cis-3-(2,5-dimethylphenyl)-2-oxo-8-(trifluoromethyl)-1-azaspiro[4.5]dec-3-en-4-yl ethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

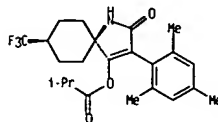


RN 332348-54-6 CAPLUS  
CN Carbonic acid, ethyl cis-2-oxo-8-(trifluoromethyl)-3-(2,4,5-trimethylphenyl)-1-azaspiro[4.5]dec-3-en-4-yl ester (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

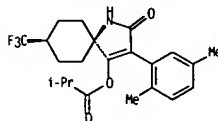
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CN Propanoic acid, 2-methyl-, cis-2-oxo-8-(trifluoromethyl)-3-(2,4,6-trimethylphenyl)-1-azaspiro[4.5]dec-3-en-4-yl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.



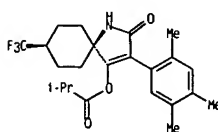
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Relative stereochemistry.



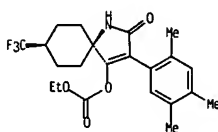
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CN Propanoic acid, 2-methyl-, cis-2-oxo-8-(trifluoromethyl)-3-(2,4,5-trimethylphenyl)-1-azaspiro[4.5]dec-3-en-4-yl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.



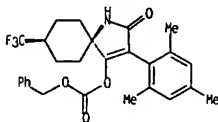
L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

Relative stereochemistry.



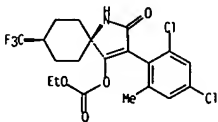
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CN Carbonic acid, cis-2-oxo-8-(trifluoromethyl)-3-(2,4,6-trimethylphenyl)-1-azaspiro[4.5]dec-3-en-4-yl phenylmethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 332348-60-4 CAPLUS  
CN Carbonic acid, cis-3-(2,4-dichloro-6-methylphenyl)-2-oxo-8-(trifluoromethyl)-1-azaspiro[4.5]dec-3-en-4-yl ethyl ester (9CI) (CA INDEX NAME)

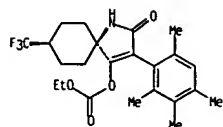
Relative stereochemistry.



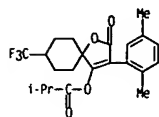
RN 332348-63-7 CAPLUS  
CN Carbonic acid, ethyl cis-2-oxo-3-(2,3,4,6-tetramethylphenyl)-8-(trifluoromethyl)-1-azaspiro[4.5]dec-3-en-4-yl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.

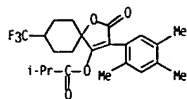
L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



RN 332348-75-1 CAPLUS  
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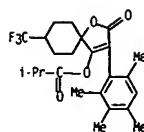


RN 332348-77-3 CAPLUS  
 CN Propanoic acid, 2-methyl-, 2-oxo-8-(trifluoromethyl)-3-(2,4,5-trimethylphenyl)-1-oxaspiro[4.5]dec-3-en-4-yl ester (9CI) (CA INDEX NAME)



RN 332348-80-8 CAPLUS  
 CN Propanoic acid, 2-methyl-, 2-oxo-3-(2,3,4,6-tetramethylphenyl)-8-(trifluoromethyl)-1-oxaspiro[4.5]dec-3-en-4-yl ester (9CI) (CA INDEX NAME)

L4 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



=> fil reg

FILE 'REGISTRY' ENTERED AT 11:32:48 ON 27 SEP 2003

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STRUCTURE FILE UPDATES: 26 SEP 2003 HIGHEST RN 593958-55-5

DICTIONARY FILE UPDATES: 26 SEP 2003 HIGHEST RN 593958-55-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27. Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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Uploading 088979b.str

L5 STRUCTURE UPLOADED

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SAMPLE SCREEN SEARCH COMPLETED - 5 TO ITERATE

100.0% PROCESSED 5 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 5 TO 234

PROJECTED ANSWERS: 0 TO 0

L6 0 SEA SSS SAM L5

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FULL SCREEN SEARCH COMPLETED - 108 TO ITERATE

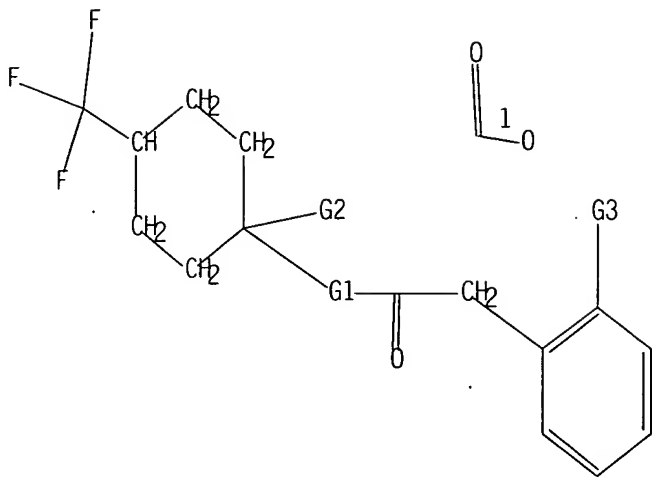
100.0% PROCESSED 108 ITERATIONS

10 ANSWERS

SEARCH TIME: 00.00.01

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L5 STR



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G3 X,Cb,CN,N02,C,O,S

Structure attributes must be viewed using STN Express query preparation.

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100.0% PROCESSED 108 ITERATIONS  
SEARCH TIME: 00.00.01

10 ANSWERS

=> fil capl

FILE 'CAPLUS' ENTERED AT 11:33:31 ON 27 SEP 2003

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FILE COVERS 1907 - 27 Sep 2003 VOL 139 ISS 14

FILE LAST UPDATED: 26 Sep 2003 (20030926/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L8 1 L7

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L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:247313 CAPLUS

DOCUMENT NUMBER: 134:280721

TITLE: Preparation of trifluoromethyl spirocyclic ketoenols for use as pesticides and herbicides  
 FISCHER, Reiner; GRAFF, Alan; BRETSCHNEIDER, Thomas; ERDELEN, Christoph; DREWES, Mark Wilhelmo; FEUCHT, Dieter

PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 144 pp.  
 CODEN: PIXX02

DOCUMENT TYPE: Patent

LANGUAGE: German

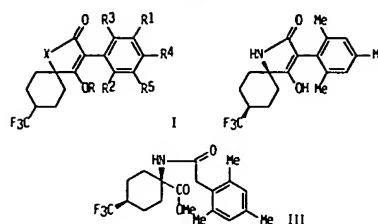
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|---|------|----------|------------------|----------|
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| WO 2001023354   | A3   | 20020228 |                  |          |
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| GRAPHIC IMAGE:  |      |          |                  |          |

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN

(Continued)



## ABSTRACT:

Spirocyclic ketoenols, such as I [X = O, NH; R = H, acyl, alkyloxy, carbonyl, etc.; R1 = H, halogen, alkyl, alkoxy; R2 = H, CN, NO2, Ph, PhO, PhS, alkyl, alkenyl, alkynyl, alkoxy, haloalkyl, haloalkoxy, phenylalkoxy, phenylalkylthio; R3 = H, CN, NO2, Ph, PhS, PhO, alkyl, alkenyl, alkynyl, alkoxy, haloalkyl, haloalkoxy, phenylalkoxy, phenylalkylthio; R4 = H, CN, NO2, halogen, alkyl, alkoxy, haloalkyl, haloalkoxy; R5 = H, CN, NO2, OH, PhS, PhO, halogen, alkyl, alkoxy, haloalkyl, haloalkoxy, heteroaryloxy, phenylalkoxy, phenylalkylthio], were prepd. for use as pesticides and herbicides. Thus, spirocyclic ketoenol II was prepd. in 74% yield by intramol. cyclocondensation of ester III, which was prepd. starting from 4-(trifluoromethyl)cyclohexanone and mesityleneacetyl chloride. The prepd. spirocyclic ketoenols were tested for insecticidal activity against species, such as Myzus persicae, Aphis gossypii, and Tetranychus urticae.

IT 332348-83-1P 332348-85-3P 332348-88-6P

332348-91-1P 332348-93-3P 332348-96-6P

332348-99-9P 332349-07-2P 332349-09-4P

332349-11-8P

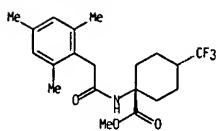
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. of trifluoromethyl spirocyclic ketoenols for use as pesticides and herbicides)

RN 332348-83-1 CAPLUS

CN Cyclohexanecarboxylic acid, 4-((trifluoromethyl)-1-((2,4,6-trimethylphenyl)acetyl)amino)-, methyl ester, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

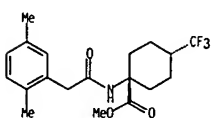
L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



RN 332348-85-3 CAPLUS

CN Cyclohexanecarboxylic acid, 1-[[[(2,5-dimethylphenyl)acetyl]amino]-4-(trifluoromethyl)-, methyl ester, cis- (9CI) (CA INDEX NAME)

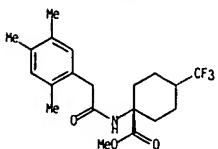
Relative stereochemistry.



RN 332348-88-6 CAPLUS

CN Cyclohexanecarboxylic acid, 4-((trifluoromethyl)-1-[[[(2,4,5-trimethylphenyl)acetyl]amino]-, methyl ester, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



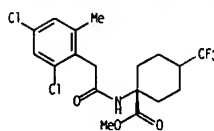
RN 332348-91-1 CAPLUS

CN Cyclohexanecarboxylic acid, 1-[[[(2,4-dichloro-6-methylphenyl)acetyl]amino]-4-(trifluoromethyl)-, methyl ester, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN

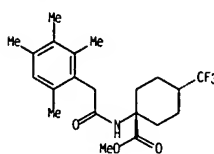
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RN 332348-93-3 CAPLUS

CN Cyclohexanecarboxylic acid, 1-[[[(2,3,4,6-tetramethylphenyl)acetyl]amino]-4-(trifluoromethyl)-, methyl ester, cis- (9CI) (CA INDEX NAME)

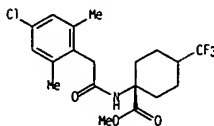
Relative stereochemistry.



RN 332348-96-6 CAPLUS

CN Cyclohexanecarboxylic acid, 1-[[[(4-chloro-2,6-dimethylphenyl)acetyl]amino]-4-(trifluoromethyl)-, methyl ester, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.



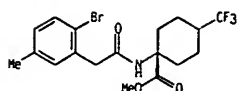
RN 332348-99-9 CAPLUS

CN Cyclohexanecarboxylic acid, 1-[[[(2-bromo-5-methylphenyl)acetyl]amino]-4-(trifluoromethyl)-, methyl ester, cis- (9CI) (CA INDEX NAME)

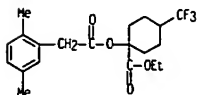
Relative stereochemistry.

LB ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)

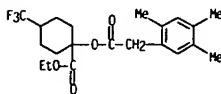
LB ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



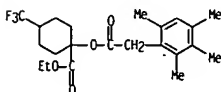
RN 332349-07-2 CAPLUS  
CN Benzeneacetic acid, 2,5-dibromo-, 1-(ethoxycarbonyl)-4-(trifluoromethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



RN 332349-09-4 CAPLUS  
CN Benzeneacetic acid, 2,4,5-trimethyl-, 1-(ethoxycarbonyl)-4-(trifluoromethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



RN 332349-11-8 CAPLUS  
CN Benzeneacetic acid, 2,3,4,6-tetramethyl-, 1-(ethoxycarbonyl)-4-(trifluoromethyl)cyclohexyl ester (9CI) (CA INDEX NAME)



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FILE 'REGISTRY' ENTERED AT 11:33:52 ON 27 SEP 2003

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STRUCTURE FILE UPDATES: 26 SEP 2003 HIGHEST RN 593958-55-5

DICTIONARY FILE UPDATES: 26 SEP 2003 HIGHEST RN 593958-55-5

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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L9 STRUCTURE UPLOADED

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0 ANSWERS

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FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*

BATCH \*\*COMPLETE\*\*

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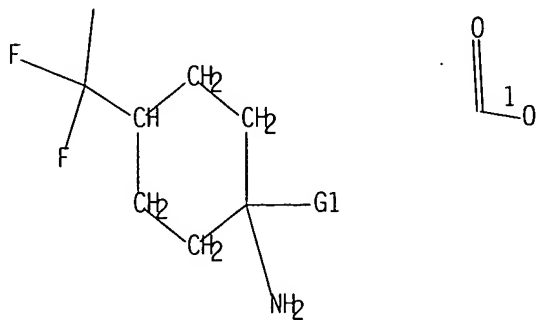
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Structure attributes must be viewed using STN Express query preparation.

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1 ANSWERS

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FILE COVERS 1907 - 27 Sep 2003 VOL 139 ISS 14

FILE LAST UPDATED: 26 Sep 2003 (20030926/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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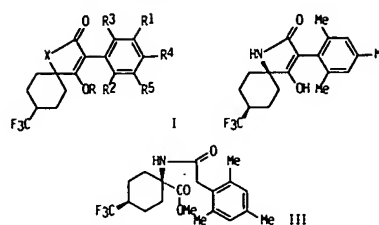
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L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2001:247313 CAPLUS  
 DOCUMENT NUMBER: 134:280721  
 TITLE: Preparation of trifluoromethyl spirocyclic ketoenols for use as pesticides and herbicides  
 INVENTOR(S): Fischer, Reiner; Graff, Alan; Bretschneider, Thomas; Erdelen, Christoph; Drewes, Mark Wilhelm; Feucht, Dieter  
 PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany  
 SOURCE: PCT Int. Appl., 144 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 2001023354  | A2   | 20010405 | WO 2000-EP9270  | 20000919 |
| WO 2001023354  | A3   | 20020228 |                 |          |
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L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



## ABSTRACT:

Spirocyclic ketoenols, such as I (X = O, NH; R = H, acyl, alkoxycarbonyl, etc.; R1 = H, halogen, alkyl, alkoxy; R2 = H, CN, NO2, Ph, PhO, PhS, alkyl, alkenyl, alkynyl, alkoxy, haloalkyl, haloalkoxy, phenylalkoxy, phenylalkylthio; R3 = H, CN, NO2, Ph, PhS, PhO, alkyl, alkenyl, alkynyl, alkoxy, haloalkyl, haloalkoxy, phenylalkoxy, phenylalkylthio; R4 = H, CN, NO2, halogen, alkyl, alkoxy, haloalkyl, haloalkoxy; R5 = H, CN, NO2, OH, PhS, PhO, halogen, alkyl, alkoxy, haloalkyl, haloalkoxy, heteroaryloxy, phenylalkoxy, phenylalkylthio], were prepd. for use as pesticides and herbicides. Thus, spirocyclic ketoenol II was prepd. in 74% yield by intramol. cyclocondensation of ester III, which was prepd. starting from 4-(trifluoromethyl)cyclohexanone and mesityleneacetyl chloride. The prepd. spirocyclic ketoenols were tested for insecticidal activity against species, such as Myzus persicae, Aphis gossypii, and Tetranychus urticae.

## IT 332349-04-9P

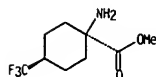
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (prepn. of trifluoromethyl spirocyclic ketoenols for use as pesticides and herbicides)

## RN 332349-04-9 CAPLUS

CN Cyclohexanecarboxylic acid, 1-amino-4-(trifluoromethyl)-, methyl ester, cis- (9CI) (CA INDEX NAME)

Relative stereochemistry.

L12 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN (Continued)



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Page 14

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COST IN U.S. DOLLARS

SINCE FILE  
ENTRY

TOTAL  
SESSION

FULL ESTIMATED COST

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

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CA SUBSCRIBER PRICE

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